

Date: Wed, 11 May 94 04:30:26 PDT
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #120
To: Ham-Space

Ham-Space Digest Wed, 11 May 94 Volume 94 : Issue 120

Today's Topics:

 * SpaceNews 09-May-94 *
 NARS Emerg. TFC NET Info.
 New AMSAT-NA stuff
 Please Help Me

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 9 May 1994 10:48:15 MDT
From: ihnp4.ucsd.edu!news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!
agate!library.ucla.edu!psgrain!nntp.cs.ubc.ca!alberta!ve6mgs!
usenet@network.ucsd.edu
Subject: * SpaceNews 09-May-94 *
To: ham-space@ucsd.edu

SB NEWS @ AMSAT \$SPC0509
* SpaceNews 09-May-94 *

BID: \$SPC0509

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SpaceNews
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MONDAY MAY 9, 1994

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is published every week and is made available for unlimited distribution.

★ SPACE CALENDAR ★

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May 10 - Annular Solar Eclipse, Visible from Mexico, USA, Canada

May 20 - Resurs Launch (Russian)

May 24-25 - Partial Lunar Eclipse

May 25 - DSPSE (Clementine), 4th Earth Flyby

May 27 - DSPSE (Clementine), Lunar Flyby

[Info via LU7AKC]

★ WEBERSAT NEWS ★

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WEBERSAT (W0-18) is broadcasting new pictures and light spectrometer data weekly. Software for the extraction, decoding, and display of spectrometer data, written by Bob (KB7KCL), is available on L0-19 (file #s 371a/3739), or directly from Weber State University. Monday UTC continues to be the day for the broadcast of the most recent spectrum, along with the week's WOD.

WeberWare 1.0, 1.2, 1.3, or a similar program is required for picture extraction, decoding, and display. WeberWare 1.3 is the current software version, and is available from Weber State University, AMSAT-NA, or AMSAT-UK. The most recent WeberSat double field image is number 10/14, which was taken of an as yet unidentified area of Northern Nigeria, Africa. The photo has very few clouds, and land features are clearly visible. Expect new photos sometime during the week of May 9th.

W0-18 is currently sending spacecraft solar array current whole orbit data (WOD). This is an excellent opportunity for a student, group, or class to use this data for spacecraft motion studies, or for studying the long term effects of the space environment on solar cell efficiency. WOD collection and broadcast will adhere to the following schedule:

1 May/Week1: Array currents, Ch# 26 27 28 29 2A 2B
8 May/Week2: Array currents, Ch# 26 27 28 29 2A 2B during 10-May-94 eclipse
15 May/Week3: BCR, 21 22 29 2F 33 36
22 May/Week4: Temperatures and impact detector, Ch# 14 2F 30 35 3B 40
29 May/Week1: Array currents, Ch# 26 27 28 29 2A 2B

[Info via EA2CLS]

★ MICROSAT DESIGN AT STANFORD ★

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Over the years a number of Stanford researchers have been involved in the design and operation of dozens of different kinds of space vehicles. But, beginning this year, the Aeronautics and Astronautics Department has initiated a new program that involves students in designing, constructing and controlling small, simple and inexpensive "microsatellites" that are launched into orbit.

On Thursday, April 21, two dozen engineering students involved in this program at Stanford University showed a mock-up of their first satellite design to a visiting Russian official, Yuri Plotnikov, professor of flight mechanics and control design at the Moscow Aviation Institute.

If the project goes as planned, a year from now the 2-foot-wide hexagonal satellite will hitch a ride on top of a Delta rocket along with a commercial satellite. Once it goes into orbit, the satellite will begin beaming back digital pictures of Earth and broadcasting its position and status over ham radio channels with a synthesized voice.

"The program has two major objectives," said Robert Twiggs, a visiting professor brought to Stanford from Weber State University in Utah to jump-start the new small satellite development laboratory. "First is to give graduate students in aero-astro and other departments practical, hands-on experience in designing and building something that can be launched into space in only a year on a very limited budget. Second is to provide faculty, students, space experimenters and industry with an opportunity to do inexpensive space experiments."

Plotnikov's interest stems from the fact that the Moscow Aviation Institute is a professional school with 15,000 students devoted to aerospace design. "The name is historical. Actually, we design anything that flies," he said. The institute currently has a joint satellite program with Utah State University. When asked whether something similar is likely with Stanford, he shrugs and replies, "It's all a matter of funding."

The students have nicknamed their design the Stanford (or Satellite) Quick Research Testbed, or SQUIRT. They hope that this could become a de facto standard for microsatellites, which are a growing phenomenon worldwide. Students at the University of Umea in Kirna, Sweden, are working on a parallel design. So far, about a dozen student-designed microsatellites have been built and launched.

The watchwords for these satellites are simple and inexpensive. So the Stanford design uses powerful magnets to keep the satellite aligned perpendicular to the Earth's magnetic field, rather than employing

complicated gyros and thrusters to control its position.

"Usually, the reason for a satellite is its payload. But we are doing things backward. Our purpose is to get the experience of designing the satellite, so what it carries is of secondary importance. However, we've tried to come up with a payload that will be interesting and worthwhile," said Christopher Kitts, a graduate student in mechanical engineering.

The payload the students have agreed upon is a digital camera, voice synthesizer and global positioning satellite system receiver. The GPS receiver will allow student controllers to determine the satellite's position. Simple photocells will determine when the camera is pointing toward the Earth. That will allow the Logitech digital camera to snap images of different parts of the globe that will be transmitted by radio to interested ham radio operators.

According to Kitts, participants hope that the pictures and synthesized messages from the satellite can be used in elementary schools, middle schools and high schools to help interest students in science.

[Info via Axel, CE3AFC]

* FO-20 MALFUNCTION *

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FO-20 command station had confirmed that the FO-20 satellite has experienced a malfunction. The operating schedule previously announced has been cancelled. More details will be available next week.

[Info via Kazu Sakamoto, JJ1WTK]

* RS-12 NEWS *

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Bandi, HA5WH reports that his friend, Sanyi, XU7VK is active on RS-12 from Cambodia and is looking for contacts. XU7VK is active during his local daytime hours and is using CW.

* OSCAR-11 NEWS *

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During a conversation with Doug, G0SYX at the Dayton Hamvention, Eric, WB1HBU was informed that UoSAT-OSCAR-11 now has its S-band beacon transmitting continuously on 2401.5 MHz.

[Info via Eric, WB1HBU]

* FEEDBACK/INPUT WELCOMED *

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Mail to SpaceNews should be directed to the editor (John, KD2BD) via any of the following paths:

FAX : 1-908-747-7107

PACKET : KD2BD @ N2KZH.NJ.USA.NA

INTERNET : kd2bd@ka2qhd.de.com -or- kd2bd@amsat.org

MAIL : John A. Magliacane, KD2BD
Department of Engineering and Technology
Advanced Technology Center
Brookdale Community College
Lincroft, New Jersey 07738
U.S.A.

<<= SpaceNews: The first amateur newsletter read in space! -=>>

/EX

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John A. Magliacane, KD2BD * /\ * Voice : 1-908-224-2948
Advanced Technology Center |/\| Packet : KD2BD @ N2KZH.NJ.USA.NA
Brookdale Community College |/\| Internet: kd2bd@ka2qhd.de.com
Lincroft, NJ 07738 * \/\ * Morse : -.- -.. ..--- -... -..

Date: 09 May 94 12:31:18 -0600

From: galaxy.ucr.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!usc!cs.utexas.edu!
swrinde!emory!news-feed-2.peachnet.edu!news-feed-1.peachnet.edu!umn.edu!uum1!

kksys.com!mmbbs!datag@ihnp4.ucsd.edu

Subject: NARS Emerg. TFC NET Info.

To: ham-space@ucsd.edu

Re: Bulletin For Immediate Release on all Military & Radio Boards.

Date: May 8, 1994

From: Edward Addy/KE0EG/AAM6RD/NACEC.HQ

The North American Center for Emergency Communications, Inc.(NACEC)
Affiliate
Radio
System
(NARS)

NACEC is being developed to serve the emergency communications needs of

Military Families, Disaster Victims and Disaster Relief Operations. This being done by building one of the most powerful commercial grade radio communication centers in North America and making it services available new tool to support the communications needs in these areas. NACEC accomplishes this mission by maintaining its communications center's abi to operate on and support radio communications on the Commercial, Milita Federal Gov., State Gov. and Amateur Radio parts of the RF spectrum. NARS is the Amateur Radio traffic support network for NACEC.

NARS is being developed as a high speed emergency traffic network consis of trained and dedicated radio operators. Training & Testing are provid during weekly radio nets that are conducted on amateur radio frequencies NARS is intended for only those amateur radio operators that are serious about helping others.

All MARS (Military Affiliate Radio System) members of any branch of MARS are encouraged to participate. NARS is being fashioned after the Army MARS network. It is hoped that NARS will help provide a better understanding (and remove misconceptions) of the value of MARS, while at the same time creating a system of combined Amateur and MARS operators to handle emergency traffic. It is also hoped that NARS will also create the opportunity for many new amateurs to join and increase the membership of the various MARS programs. NARS membership currently consists of about 25% MARS and 75% Non-MARS operators.

NARS Information & Training Nets are directed nets. All members of the Amateur Radio Community are welcome to participate.

NARS nets meet on the following weekdays and times:

Week Day	Net ID	Time	Freq.	Mode
Sundays:	NARS/A	24:00 UTC/7:00 PM LST	3.860	LSB
	NARS/B	23:00 UTC/6:00 PM LST	7.262	LSB
	NARS/C	22:00 UTC/5:00 PM LST	14.347	USB
	** All HF nets meet +/- QRM and band usage.			

Thursdays: In the Minneapolis & St.Paul Minnesota Area Only.
This net is currently held on the TCFMC repeater.

NARS/D	02:00 UTC/9:00 PM LST	146.76	FM
* LST is Minnesota Local Standard Time.			

* * * * *

Information on the NARS program can be requested from the NCS on any NAR

An Information Package with Membership App. will be provided by mail.

Specific questions regarding NARS or NACEC should be directed to:

Mr. Edward Addy
NACEC
NARS Network
P.O. Box 23057
Minneapolis, MN 55423

Office Number is: 612-798-4269

* * * * *

Date: 10 May 94 14:59:20 GMT
From: agate!howland.reston.ans.net!pipex!sunic!psinntp!psinntp!wlnttp.psi.com!
usenet@ucbvax.berkeley.edu
Subject: New AMSAT-NA stuff
To: ham-space@ucsd.edu

Some new AMSAT-NA stuff was mentioned in the ANS bulletin this past weekend. I spoke with Martha this morning to find price and availability. Everything is in stock, so hurry to your mailbox!

WINSAT, the Windows-based satellite tracking program, is \$30 for members

WISP, the Windows-based PB/PG packet software, is \$30 for registration. Martha says that the program itself is available from some of the satellites, but you send \$30 to AMSAT for registration. If you can't download the program, request a disk when you order a registration number. The program is still being refined, but the registration number will work with new versions.

The AMSAT 25th anniversary patch is \$5, the decal is \$2

The AMSAT-NA Digital Satellites Guide is \$12. This is an update of the Pacsat Beginners Guide and may be revised further in the future.

The new laminated frequency chart is \$5

How to Use the Amateur Radio Satellites is \$5

The most recent version of Weberware (1.3?) is \$30 for members.

Note that these prices include postage for North American addresses. If you live in another part of the world, check with your local AMSAT group

for availability of these items.

73, Walt KE3HP

Date: 9 May 1994 15:16:54 -0500
From: dog.ee.lbl.gov!overload.lbl.gov!s1.gov!fastrac.llnl.gov!usenet.ee.pdx.edu!
cs.uoregon.edu!reuter.cse.ogi.edu!psgrain!charnel.ecst.csuchico.edu!
yeshua.marcam.com!usc!sdd@ihnp4.ucsd.edu
Subject: Please Help Me
To: ham-space@ucsd.edu

I am interested in getting started in satellite communications and would like to get more information. If you have any files or information that you could forward I would be grateful.

73 Mike N9WJV

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Michael J. Malloy
Medical College of Wisconsin
Milwaukee, Wisconsin

Amateur Radio N9WJV
Compuserve 70334,3563
Internet mmjjmm@post.its.mcw.edu

End of Ham-Space Digest V94 #120
